



Photometric Test Report

Relevant Standards

- IES LM-79-2008
- ANSI C82.77-2002
- UL1598-2008/ UL1993-2012

Prepared For

DONGBU LIGHTEC CO. LTD

14, Saneop-ro 104beon-gil, Ojeong-gu, Bucheon-si, Gyeonggi-do, Korea

SangHyun Ahn, 82-32-670-3065, sanghyun@dongbu.com

Test Laboratory: UL-CCIC Company Limited

Test Laboratory Address: 2, Chengwan Road, Suzhou Industrial Park, Suzhou 21522 China

Catalog Number

SCLH120-UM-18-DD

Project Number

4788086873

Report Number

4788086873-6

Test Date

2017-09-12~ 2017-09-14

Issue Date

2017-10-10

Prepared By

Kyungmo Park

Approved By

Duff Yang

The results contained in this report pertain only to the tested sample.

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1.0 Test Summary

DLC Technical Requirements v4.2

Requirement Category	Test Method	Requirements	Test value	Results (Fail/Pass)
Minimum Light Output (lm)	IES LM-79-2008	10000	17035.40	Pass
Minimum Lamp Output (lm)	IES LM-79-2008	N/A	N/A	N/A
Spacing Criteria (0-180°)	IES LM-79-2008	N/A	N/A	N/A
Spacing Criteria (90-270°)	IES LM-79-2008	N/A	N/A	N/A
Zonal Lumen Requirement (20°-50°)	IES LM-79-2008	≥30%	52.2%	Pass
Zonal Lumen Requirement 2	IES LM-79-2008	N/A	N/A	N/A
Minimum Luminaire Efficacy (lm/W)	IES LM-79-2008	130	142.95	Pass
Minimum Lamp Efficacy (lm/ft)	IES LM-79-2008	N/A	N/A	N/A
Allowable CCTs* (K)	IES LM-79-2008	≤5700	5255	Pass
Minimum CRI	IES LM-79-2008 CIE 13.3-1995	≥70	84.23	Pass
L70 Lumen maintenance (hours)	IES LM-80-2015 IES TM-21-2011	≥50000	≥50000	Pass
L90 Lumen maintenance (hours)	IES LM-80-2015 IES TM-21-2011	≥36000	≥36000	Pass
Power Factor	ANSI C82.77-2002	≥0.9	0.9954	Pass
Total Harmonic Distortion (A%)	ANSI C82.77-2002	≤20%	6.7%	Pass
In-Situ Temperature Measurement Test for LED (°C)	UL1598-2008/ UL1993-2012	N/A	N/A	N/A
In-Situ Temperature Measurement Test for Driver (°C)	UL1598-2008/ UL1993-2012	N/A	N/A	N/A
Minimum Luminaire Warranty (years)	N/A	5	5	Pass

*Defined by ANSI C78.377-2011‡

SCLH120-UM-18-DD

Doc No: 10-IC-F0854

Issue: 4.0

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2.0 Test List

Test Item	Test	Test Date	Model Number	Tests Conducted By
1	Integrating Sphere Test for the Lower CCT	2017-09-14	SCLH120-UM-18-DD	Wu Elvis
2	Goniophotometer Test	2017-09-12	SCLH120-UM-18-DD	Wu Elvis
3	THD and PF Test	2017-09-14	SCLH120-UM-18-DD	Wu Elvis

Remark (if any)

1. UL test equipment information is recorded on Meter Use in UL's Aurora database.



3.0 Production Description

Luminaire Description: High-Bay Luminaires

Model Number: SLH120-UM-18-DD

Rated Voltage: 120~277V

Frequency: 50/60 Hz

LED Package: SPMWHT541M

Family Model and Variation: SCLH120-UM-18-YD SCLH120-UM-18-DD SCLH120-UM-18-ND

Photos of Luminaire Characteristics





4.0 LM-79 Measurement and Test Results

Model No.	SCLH120-UM-18-DD	Sample ID.	1149512-3
Operate time (Min.)	90	Stabilization time (Min.)	45

Test Method

1. The sample was tested according to the IES LM-79-2008.

2. Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25° C ± 1° C. The reference standard lamp is rated current 2.6A omnidirectional Incandescent lamp and was calibrated by china seprei laboratory.

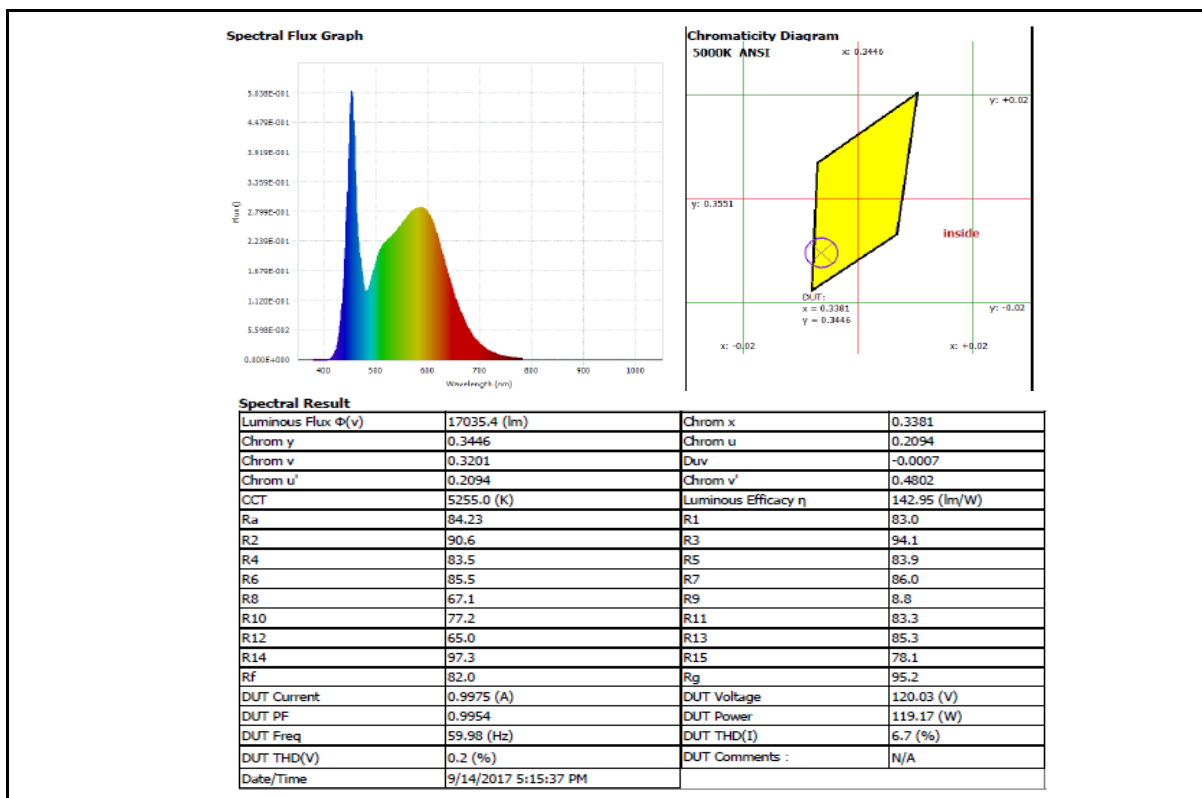
3. The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere. Coating reflectance of the integrating sphere was 90% to 98%. Photometric measurement conditions was using 4π geometry. The self-absorption factor is applied in the final test result. The sample was operated at rated voltage and was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to 780 nm.

Integrating Sphere Test Conditions

Temperature (°C)	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	Orientation
25.2	120.03	60	0.9975	119.17	0.9954	Horizontal

Test Results

CCT (K)	CRI (Ra)	Duv	Luminous Flux (lm)	Luminous Efficacy (lm/W)
5255	84.23	-0.0007	17035.4	142.95





5.0 LM-79 Measurement and Test Results

Model No.	SCLH120-UM-18-DD	Sample ID.	1149512-3
Operate time (Min.)	90	Stabilization time (Min.)	45

Test Method

1.The sample was tested according to the IES LM-79-2008.
 2.Photometric paramters were measured using a type C goniophotometer and software.
 3.The ambient temperature shall be maintained at 25° C ± 1° C, measured at a point not more than 1 m from the sample and at the same height as the sample.The reference standard lamp is rated current 3.865A omni-directional Incandescent lamp and was calibrated by china seprei laboratory.
 4.The samples were operated at rated voltage and was stabilized before measurement. Luminous flux, luminaire efficacy, zonal lumen were calculated from the software taken at 0.5° vertical intervals and 22.5° horizontal intervals..Photometric distance was more than five times of the largest dimension of the test SSL product.

Goniophotometer Test Conditions

Temperature (°C)	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	Orientation
25.6	120.04	60	0.9997	119.52	0.9961	Horizontal

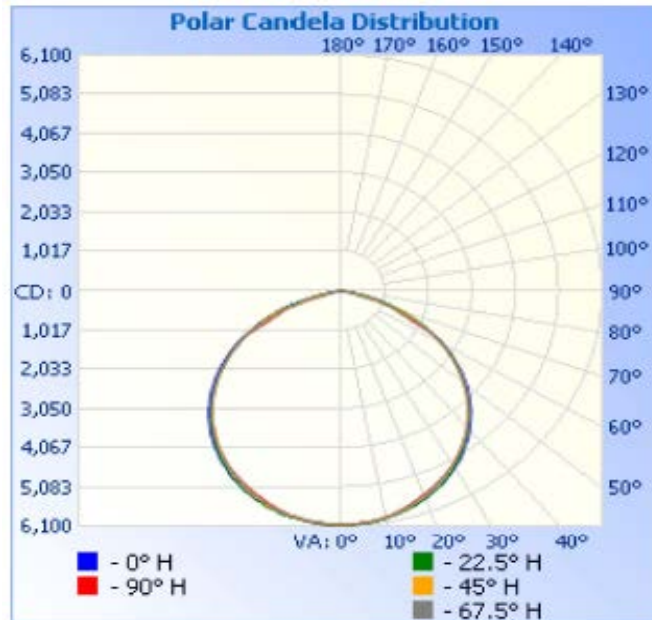
Test Result

Flux (lm)	Zonal Lumen Requirement (20°-50°)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)
		Horizontal Spread	Vertical Spread	Horizontal Spread	Vertical Spread	
16971.20	> 30%	149.1	154.8	114.7	115.2	141.99
SC						
20°-50°						
52.2%						

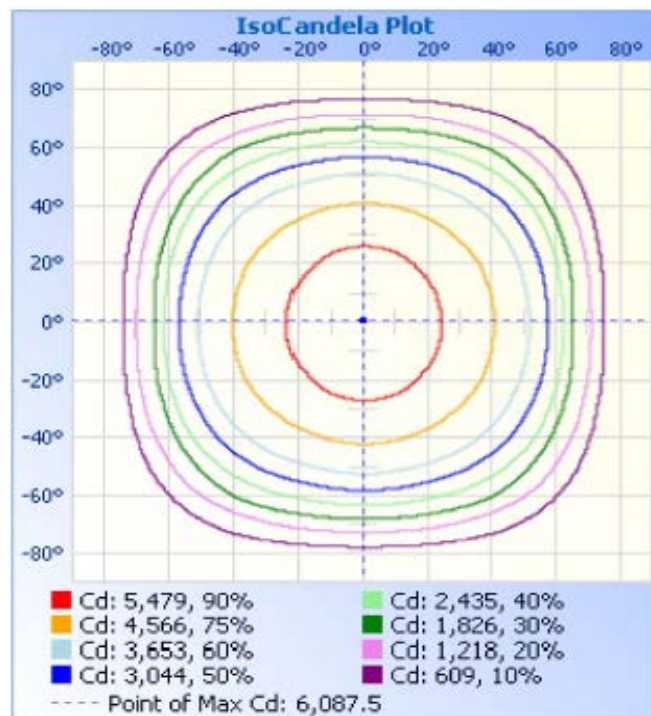


5.2 Goniophotometer Test (Cont'd)

Light Distribution Curve



IsoCandela Plot





5.2 Goniophotometer Test (Cont'd)

Zonal Lumen Summary

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	4,758.6	28%
0-40	7,856.5	46.3%
0-60	14,028.0	82.7%
60-90	2,943.2	17.3%
70-100	917.6	5.4%
90-120	0	0%
0-90	16,971.2	100%
90-180	0	0%
0-180	16,971.2	100%

Lumens Per Zone

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-5	144.9	0.9%	90-95	0	0%
5-10	430.2	2.5%	95-100	0	0%
10-15	702.0	4.1%	100-105	0	0%
15-20	951.5	5.6%	105-110	0	0%
20-25	1,172.1	6.9%	110-115	0	0%
25-30	1,357.9	8.0%	115-120	0	0%
30-35	1,501.9	8.8%	120-125	0	0%
35-40	1,595.9	9.4%	125-130	0	0%
40-45	1,635.9	9.6%	130-135	0	0%
45-50	1,616.6	9.5%	135-140	0	0%
50-55	1,533.7	9.0%	140-145	0	0%
55-60	1,385.3	8.2%	145-150	0	0%
60-65	1,164.8	6.9%	150-155	0	0%
65-70	860.9	5.1%	155-160	0	0%
70-75	558.5	3.3%	160-165	0	0%
75-80	261.2	1.5%	165-170	0	0%
80-85	83.7	0.5%	170-175	0	0%
85-90	14.2	0.1%	175-180	0	0%



5.2 Goniophotometer Test (Cont'd)
Intensity Data(cd)

Candela Table - Type C																	
	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	360
0	6075	6075	6075	6075	6075	6075	6075	6075	6075	6075	6075	6075	6075	6075	6075	6075	6075
1	6088	6085	6063	6079	6069	6073	6062	6079	6081	6079	6062	6073	6069	6079	6063	6085	6088
2	6071	6079	6061	6075	6058	6062	6060	6073	6069	6073	6060	6062	6058	6075	6061	6079	6071
3	6048	6068	6070	6061	6054	6071	6067	6084	6059	6084	6067	6071	6054	6061	6070	6068	6048
4	6047	6053	6049	6071	6047	6067	6052	6075	6042	6075	6052	6067	6047	6071	6049	6053	6047
5	6056	6048	6042	6056	6038	6051	6035	6069	6035	6069	6035	6051	6038	6056	6042	6048	6056
6	6034	6042	6028	6044	6030	6037	6032	6042	6032	6042	6032	6037	6030	6044	6028	6042	6034
7	6036	6036	6016	6033	6016	6035	6016	6038	6032	6038	6016	6035	6016	6033	6016	6036	6036
8	6004	6027	5996	6013	6010	6024	6007	6025	6018	6025	6007	6024	6010	6013	5996	6027	6004
9	5995	6004	5974	5989	5972	5994	5978	6017	6001	6017	5978	5994	5972	5989	5974	6004	5995
10	5988	5989	5971	5984	5960	5977	5978	5994	5984	5994	5978	5977	5960	5984	5971	5989	5988
11	5950	5966	5958	5942	5941	5949	5953	5984	5970	5984	5953	5949	5941	5942	5958	5966	5950
12	5937	5946	5922	5934	5916	5923	5936	5955	5944	5955	5936	5923	5916	5934	5922	5946	5937
13	5916	5924	5900	5906	5880	5902	5908	5950	5928	5950	5908	5902	5880	5906	5900	5924	5916
14	5888	5910	5881	5875	5845	5883	5878	5918	5913	5918	5878	5883	5845	5875	5881	5910	5888
15	5864	5889	5855	5828	5810	5846	5859	5881	5872	5881	5859	5846	5810	5828	5855	5889	5864
16	5842	5853	5825	5802	5784	5810	5833	5872	5851	5872	5833	5810	5784	5802	5825	5853	5842
17	5822	5824	5777	5773	5740	5763	5815	5844	5824	5844	5815	5763	5740	5773	5777	5824	5822
18	5811	5802	5753	5735	5703	5744	5752	5814	5792	5814	5752	5744	5703	5735	5753	5802	5811
19	5759	5766	5724	5686	5658	5692	5726	5771	5757	5771	5726	5692	5658	5686	5724	5766	5759
20	5720	5728	5678	5649	5629	5662	5690	5754	5758	5754	5690	5662	5629	5649	5678	5728	5720
21	5702	5688	5638	5605	5592	5614	5653	5700	5704	5700	5653	5614	5592	5605	5638	5688	5702
22	5661	5658	5588	5595	5555	5584	5605	5668	5649	5668	5605	5584	5555	5595	5588	5658	5661
23	5619	5617	5554	5538	5518	5543	5561	5636	5644	5636	5561	5543	5518	5538	5554	5617	5619
24	5578	5579	5504	5492	5468	5507	5512	5589	5588	5589	5512	5507	5468	5492	5504	5579	5578
25	5551	5537	5459	5455	5439	5456	5469	5541	5547	5541	5469	5456	5439	5455	5459	5537	5551
26	5509	5485	5403	5402	5381	5416	5422	5499	5495	5499	5422	5416	5381	5402	5403	5485	5509
27	5451	5435	5364	5356	5351	5365	5382	5452	5465	5452	5382	5365	5351	5356	5364	5435	5451
28	5390	5384	5315	5306	5299	5330	5324	5402	5426	5402	5324	5330	5299	5306	5315	5384	5390
29	5355	5339	5256	5272	5256	5274	5276	5356	5362	5356	5276	5274	5256	5272	5256	5339	5355
30	5300	5272	5196	5206	5209	5233	5220	5290	5297	5290	5220	5233	5209	5206	5196	5272	5300
31	5244	5223	5148	5159	5165	5163	5170	5245	5262	5245	5170	5163	5165	5159	5148	5223	5244
32	5202	5171	5091	5110	5099	5123	5107	5186	5205	5186	5107	5123	5099	5110	5091	5171	5202
33	5144	5098	5044	5051	5047	5054	5056	5133	5159	5133	5056	5054	5047	5051	5044	5098	5144
34	5069	5032	4966	4990	4987	5011	4996	5066	5082	5066	4996	5011	4987	4990	4966	5032	5069
35	4995	4974	4925	4916	4927	4944	4924	4994	5023	4994	4924	4944	4927	4916	4925	4974	4995
36	4937	4916	4847	4865	4869	4881	4858	4929	4967	4929	4858	4881	4869	4865	4847	4916	4937
37	4876	4836	4775	4796	4800	4824	4796	4862	4904	4862	4796	4824	4800	4796	4775	4836	4876
38	4820	4759	4719	4743	4729	4749	4717	4800	4837	4800	4717	4749	4729	4743	4719	4759	4820
39	4734	4690	4643	4665	4658	4698	4665	4711	4775	4711	4665	4698	4658	4665	4643	4690	4734
40	4662	4613	4577	4587	4593	4603	4592	4640	4700	4640	4592	4603	4593	4587	4577	4613	4662
41	4590	4538	4482	4526	4535	4527	4517	4577	4617	4577	4517	4527	4535	4526	4482	4538	4590
42	4512	4463	4426	4452	4470	4476	4431	4489	4541	4489	4431	4476	4470	4452	4426	4463	4512
43	4433	4381	4350	4372	4382	4385	4357	4414	4475	4414	4357	4385	4382	4372	4350	4381	4433
44	4362	4285	4265	4282	4294	4301	4273	4327	4392	4327	4273	4301	4294	4282	4265	4285	4362
45	4275	4205	4174	4201	4220	4224	4191	4249	4315	4249	4191	4224	4220	4201	4174	4205	4275
46	4183	4124	4097	4123	4141	4139	4114	4143	4209	4143	4114	4139	4141	4123	4097	4124	4183
47	4090	4036	4016	4038	4061	4055	4034	4068	4148	4068	4034	4055	4061	4038	4016	4036	4090
48	4006	3947	3924	3946	3968	3969	3944	3984	4054	3984	3944	3969	3968	3946	3924	3947	4006
49	3912	3851	3830	3850	3880	3872	3854	3884	3962	3884	3854	3872	3880	3850	3830	3851	3912
50	3824	3755	3742	3753	3791	3776	3762	3787	3862	3787	3762	3776	3791	3753	3742	3755	3824
51	3722	3663	3646	3654	3697	3680	3668	3697	3764	3697	3668	3680	3697	3654	3646	3663	3722
52	3621	3566	3547	3558	3602	3582	3569	3595	3670	3595	3569	3582	3602	3558	3547	3566	3621
53	3521	3466	3448	3459	3502	3477	3469	3492	3574	3492	3469	3477	3502	3459	3448	3466	3521
54	3415	3363	3350	3355	3398	3372	3367	3387	3467	3387	3367	3372	3398	3355	3350	3363	3415



55	3302	3257	3242	3250	3296	3269	3263	3284	3360	3284	3263	3269	3296	3250	3242	3257	3302
56	3186	3151	3134	3142	3191	3161	3157	3180	3255	3180	3157	3161	3191	3142	3134	3151	3186
57	3076	3043	3022	3033	3086	3047	3049	3073	3141	3073	3049	3047	3086	3033	3022	3043	3076
58	2967	2930	2914	2918	2974	2935	2936	2962	3029	2962	2936	2935	2974	2918	2914	2930	2967
59	2850	2815	2802	2808	2859	2827	2824	2846	2908	2846	2824	2827	2859	2808	2802	2815	2850
60	2734	2697	2686	2691	2743	2711	2711	2728	2797	2728	2711	2711	2743	2691	2686	2697	2734
61	2610	2580	2570	2570	2621	2592	2600	2607	2681	2607	2600	2592	2621	2570	2570	2580	2610
62	2486	2462	2450	2442	2474	2472	2482	2490	2556	2490	2482	2472	2474	2442	2450	2462	2486
63	2360	2345	2327	2314	2279	2347	2362	2371	2428	2371	2362	2347	2279	2314	2327	2345	2360
64	2233	2222	2201	2167	2042	2196	2236	2246	2301	2246	2236	2196	2042	2167	2201	2222	2233
65	2106	2098	2076	1969	1828	2002	2111	2125	2176	2125	2111	2002	1828	1969	2076	2098	2106
66	1978	1974	1949	1746	1685	1773	1984	2004	2051	2004	1984	1773	1685	1746	1949	1974	1978
67	1850	1850	1824	1560	1583	1580	1860	1879	1922	1879	1860	1580	1583	1560	1824	1850	1850
68	1721	1726	1697	1440	1486	1459	1736	1754	1788	1754	1736	1459	1486	1440	1697	1726	1721
69	1592	1599	1565	1346	1391	1360	1607	1623	1657	1623	1607	1360	1391	1346	1565	1599	1592
70	1464	1469	1408	1251	1298	1268	1451	1493	1528	1493	1451	1268	1298	1251	1408	1469	1464
71	1333	1344	1213	1160	1207	1173	1249	1366	1398	1366	1249	1173	1207	1160	1213	1344	1333
72	1208	1215	1042	1072	1104	1083	1080	1238	1264	1238	1080	1083	1104	1072	1042	1215	1208
73	1086	1097	930	977	916	990	967	1116	1142	1116	967	990	916	977	930	1097	1086
74	966	979	838	821	687	842	868	995	1018	995	868	842	687	821	838	979	966
75	846	857	747	608	519	632	778	876	901	876	778	632	519	608	747	857	846
76	733	743	665	451	424	465	688	762	788	762	688	465	424	451	665	743	733
77	625	632	573	363	378	369	601	653	674	653	601	369	378	363	573	632	625
78	524	532	435	318	340	324	468	547	574	547	468	324	340	318	435	532	524
79	432	415	297	285	306	288	323	436	476	436	323	288	306	285	297	415	432
80	344	310	217	249	268	253	227	328	388	328	227	253	268	249	217	310	344
81	267	243	182	216	229	220	188	255	306	255	188	220	229	216	182	243	267
82	202	186	153	175	154	180	161	200	234	200	161	180	154	175	153	186	202
83	146	138	126	94	76	100	132	144	172	144	132	100	76	94	126	138	146
84	102	78	93	55	54	52	102	89	123	89	102	52	54	55	93	78	102
85	65	54	44	44	45	44	50	54	81	54	50	44	45	44	44	54	65
86	40	39	31	37	39	37	32	41	51	41	32	37	39	37	31	39	40
87	20	23	26	32	36	32	26	25	27	25	26	32	36	32	26	23	20
88	12	14	20	28	30	28	20	15	14	15	20	28	30	28	20	14	12
89	5	11	18	24	26	23	18	11	7	11	18	23	26	24	18	11	5
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
117	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
126	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
128	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
133	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
134	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
138	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
139	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
142	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
144	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
146	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
147	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
149	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
151	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
153	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
154	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
156	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
161	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
162	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
163	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
164	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



171	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
173	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
174	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
176	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
177	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
178	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



6.0 THD and PF Test

Test Method

1. The samples were tested according to the ANSI C82.77-2002.
2. The ambient temperature condition was maintained at $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$. The sample measurement was made using a digital power meter and power supply. The sample was operated at rated voltage and stabilized before measurement. The total harmonic distortion were calculated from the digital power meter.

Test Results

Temperature (°C)	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	Current THD
25.2	276.9	60	0.44720	118.45	0.9565	16.20%



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